

**Notice of Allowability**

Application No.

10/502,009

Examiner

Helene Klemanski

Applicant(s)

TATEISHI ET AL.

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1755

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed December 11, 2006.
2. ☒ The allowed claim(s) is/are 1-9.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☒ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☒ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08),  
Paper No./Mail Date 12/11/06
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material


5. ☐ Notice of Informal Patent Application

6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_.

7. ☒ Examiner's Amendment/Comment

8. ☒ Examiner's Statement of Reasons for Allowance

9. ☐ Other \_\_\_\_\_

  
HELENE KLEMANSKI  
PRIMARY EXAMINER  
GROUP 1700

### EXAMINER'S AMENDMENT

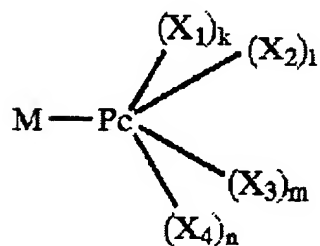
1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

The application has been amended as follows:

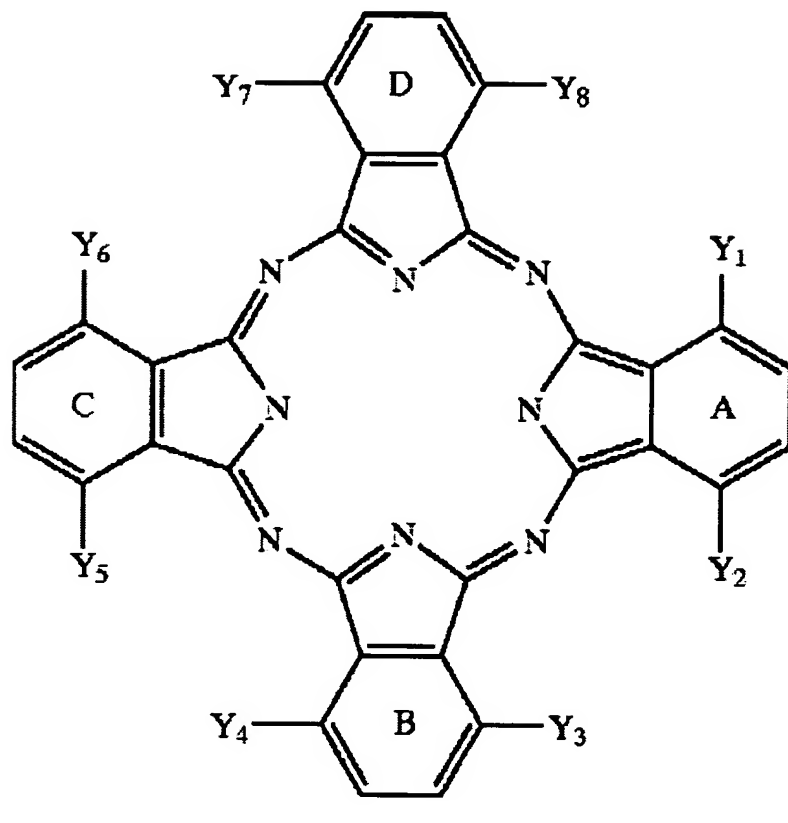
In claim 3, line 3, the comma after the term "-SO<sub>2</sub>NR<sub>2</sub>R<sub>3</sub>" has been deleted.

### Reasons For Allowance

2. The following is an examiner's statement of reasons for allowance: This application teaches a dye mixture comprising a plurality of different dyes represented by the formula



wherein M represents H, a metal atom or an oxide, hydroxide or halide thereof; Pc represents a phthalocyanine nucleus of the formula



$X_1$ ,  $X_2$ ,  $X_3$  and  $X_4$  each independently represents a substituent selected from the group consisting of  $-\text{SO}-\text{R}_1$ ,  $-\text{SO}_2-\text{R}_1$ ,  $-\text{SO}_2\text{NR}_2\text{R}_3$ ,  $-\text{CONR}_2\text{R}_3$ ,  $-\text{CO}_2-\text{R}_1$  and  $\text{CO}-\text{R}_1$ ; each of the four benzene rings (A, B, C and D) of the phthalocyanine nucleus has at its  $\beta$ -position at least one substituent of  $X_1$ ,  $X_2$ ,  $X_3$  and  $X_4$ , provided that the case where  $X_1$ ,  $X_2$ ,  $X_3$  and  $X_4$  all are the same is excluded and at least one of  $X_1$ ,  $X_2$ ,  $X_3$  and  $X_4$  has an ionic hydrophilic group as a substituent;  $\text{R}_1$  represents a substituted or unsubstituted alkyl group, a substituted or unsubstituted aryl group or a substituted or unsubstituted heterocyclic group;  $\text{R}_2$  represents H, a substituted or unsubstituted alkyl group, a substituted or unsubstituted aryl group or a substituted or unsubstituted heterocyclic group;  $\text{R}_3$  represents a substituted or unsubstituted alkyl group, a substituted or unsubstituted aryl group or a substituted or unsubstituted heterocyclic group; k, l, m and

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n represent an integer of  $0 < k < 8$ , an integer of  $0 < l < 8$ , an integer of  $0 \leq m \leq 8$  and an integer of  $0 \leq n \leq 8$ , provided that k and/or l and/or m and/or n each independently represents a number satisfying  $4k + l + m + n \leq 8$ ; and  $Y_1$ - $Y_8$  each independently represents H and/or a monovalent substituent that may be substituted and an ink composition containing the above dye mixture. The closest prior art of record is WO 00/08103, which teaches an ink jet ink composition comprising 0.01-30 parts by weight of one or more compounds of the formula



wherein M represents a metal or H; Pc represents a phthalocyanine nucleus; Ar represents an aromatic moiety optionally substituted by one or more groups such as carboxy or sulfo groups; v is the valence of Pc divided by the valence of M; and x is from 2.5 to 4.5 and 70-99.99 parts by weight of a liquid medium but fails to specifically exemplify the use of a mixture of water-soluble phthalocyanine dyes as claimed by applicants and fails to teach or fairly suggest that each of the four benzene rings of the phthalocyanine nucleus has at its  $\beta$ -position at least one substituent of  $X_1$ ,  $X_2$ ,  $X_3$  and  $X_4$ , provided that the case where  $X_1$ ,  $X_2$ ,  $X_3$  and  $X_4$  all are the same is excluded and at least one of  $X_1$ ,  $X_2$ ,  $X_3$  and  $X_4$  has an ionic hydrophilic group as a substituent as claimed by applicants. Applicants have provided evidence in the specification that the phthalocyanine dye mixture wherein the phthalocyanine nucleus has at its  $\beta$ -position at least one substituent of  $X_1$ ,  $X_2$ ,  $X_3$  and  $X_4$ , provided that the case where  $X_1$ ,  $X_2$ ,  $X_3$  and  $X_4$  all are the same is excluded and at least one of  $X_1$ ,  $X_2$ ,  $X_3$  and  $X_4$  has an ionic hydrophilic group as a substituent of the instant claims provides a superior color tone,

small paper dependency and excellent resistance against water, light and ozone gas (see Table 12 of the specification) as compared to the phthalocyanine dye of WO 00/08103. Accordingly, applicants showing of unobviousness and unexpected results have overcome the 103(a) rejection over WO 00/08103. Since the only rejection remaining in this application is a provisional obviousness-type double patenting rejection over copending Application No. 10/504,681 (US 2005/0231547), the examiner is withdrawing this rejection and passing this application to issue as per MPEP 804. Accordingly, this application is allowable.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

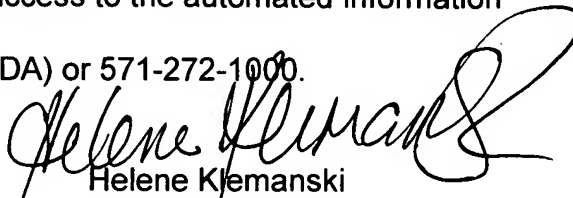
### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Helene Klemanski whose telephone number is (571) 272-1370. The examiner can normally be reached on Monday-Friday 5:30-2:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo can be reached on (571) 272-1233. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Helene Klemanski  
Primary Examiner  
Art Unit 1755



HK  
January 2, 2007